

# CLAIMS

We Claim:

1. A device for locking a grenade during storage and stabilizing the flight of the same grenade upon deployment, the grenade having a body, a fuze, a firing pin and a slider containing therein a detonator, said locking and stabilizing device comprising: a nylon ring, said ring being removably positioned to hold said slider in place and prevent any movement of said slider during storage but moving away from said slider upon deployment, thereby allowing said slider to move and arm said grenade; and a plurality of nylon ribbons, each ribbon having a front end and a back end, said ribbons being welded to said ring and being further attached at said front ends to said pin, said ribbons providing stabilization to the grenade flight so as to increase the likelihood of detonation of the grenade upon impact on a target.
2. A locking and stabilizing device as set forth in claim 1, wherein said ribbons are at least four in number and vary in length and width to provide a desired degree of stability to the grenade flight.
3. A locking and stabilizing device as set forth in claim 2, wherein each of said ribbons comprises a first portion and a second portion, said portions having said nylon ring therebetween.
4. A locking and stabilizing device as set forth in claim 3, wherein said back ends of said ribbons are welded together to form multiple pairs of loops.
5. In a grenade having a body with a diameter, a fuze, a firing pin and a slider containing therein a detonator, a device for locking the grenade against accidental detonation prior to deployment and for stabilizing the flight of the same grenade after deployment, said device comprising: a nylon ring, said ring being positioned to prevent any motion of said slider prior to deployment but being capable of releasing said slider upon

deployment of the grenade; and an even number of nylon ribbons not to exceed ten, said ribbons being affixed to said ring so as to allow said ribbons to stream aerodynamically upon deployment and provide flight stabilization.

6. A device for locking and stabilizing the flight of a grenade as set forth in claim 5, wherein the lengths of said ribbons range between one and six times said diameter of the grenade body.
7. A device for locking and stabilizing the flight of a grenade as set forth in claim 6, wherein each of said ribbons has a front end and a back end and further comprises a first portion and a second portion, said portions being separated by said nylon ring.
8. A device for locking and stabilizing the flight of a grenade as set forth in claim 7, wherein said first portions may be 0.25 to 1 times said diameter of the grenade body.
9. A device for locking and stabilizing the flight of a grenade as set forth in claim 8, wherein said front ends are welded together and further staked onto said firing pin.
10. A device for locking and stabilizing the flight of a grenade as set forth in claim 9, wherein said second portions remain unattached to each other.